

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-54 are presently active in this case. The present Amendment adds Claims 51-54.

The outstanding Office Action rejected Claims 1-4, 6, 8-22, 24-27, 29, and 43-50 under 35 U.S.C. § 103(a) as being unpatentable over Graham (U.S. Patent No. 3,344,961) in view of Frangos (U.S. Patent No. 3,292,827). Claims 5, 7, 23, 28, 30-42 are withdrawn from consideration.

In order to vary the scope of protection recited in the claims, new Claims 51-54 are added. New Claims 51-54 find non-limiting support in the disclosure as originally filed, for example from page 8, paragraph 37 to page 10, paragraph 44 with corresponding Figs. 3A-C. Therefore, the changes to the claims are not believed to raise a question of new matter.¹

In response to the rejection of the claims under 35 U.S.C. §103(a), Applicant respectfully requests reconsideration of this rejection and traverses the rejection, as discussed next.

Briefly recapitulating, Applicant's invention, as recited in Claim 1, relates to a tilting valve for dispensing a product from a pressurized container. The tilting valve includes an opening/closing element with at least two inlet apertures. The opening/closing element is capable, in response to a force transmitted to the opening/closing element *laterally* to a longitudinal axis of the tilting valve, of moving from a *closed* position to a *first open* position in which the product under pressure is dispensed at a first flow rate. The opening/closing element is also capable, in response to a force transmitted to the opening/closing element

¹ See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."

parallel to the longitudinal axis, of moving from the closed position to a second open position in which the product is dispensed at a second flow rate different from the first flow rate.

Applicant's invention improves upon conventional valves because, not only does it provide variable flow rates, it does so by differentiating between the forces (lateral vs. parallel) responsible for the different flow rates. The claimed valve thus leads to improved control for the user because the user can easily differentiate between the available flow rates by using different movements (tilting vs. depressing) to actuate the valve at the different rates.² As explained in Applicant's specification, in conventional valves with variable-flow rates, the flow rates are obtained by transmitting a force to the valve in the *same* direction, in particular by moving the valve stem downward.³

Turning now to the applied prior art, the Graham patent discloses an aerosol dispensing device. The Graham patent first describes a known spraying device (Fig. 1) that incorporates a spring 27 to bias a flange 19 against a sealing disc 10.⁴ The innovation described in the Graham patent relates to the replacement of the spring 27 by a pin 132 (Figs. 2-8).⁵ The outstanding Office Action relies on the description of the spraying device with the spring.⁶ In this device, the flange 19 defines a single metering hole 19, which connects a trough-like space 20 bounded by the flange 19 with the interior of a discharge tube 18.⁷ As acknowledged by the outstanding Office Action,⁸ the Graham patent fails to teach first and second inlet apertures. Thus, the Graham patent fails to teach the claimed opening/closing element that is capable of moving from a closed position to two open positions with different flow rates in response to two different forces, one transmitted laterally and one transmitted parallel to the longitudinal axis of the valve.

² See Applicant's specification at page 4, paragraph 19.

³ See Applicant's specification at page 3, paragraph 12.

⁴ The Graham patent, from column 3, line 48 to column 4, line 37.

⁵ The Graham patent, column 1, lines 33-42.

⁶ See outstanding Office Action at page 2 referring to Graham's column 4, lines 15-33.

⁷ The Graham patent, column 3, lines 73-75.

⁸ See outstanding Office Action at page 2, last full paragraph.

The outstanding Office Action rejects Applicant's claims based on the proposition that the Frangos patent discloses "first 38 and second 39 inlet apertures so a user can select different flow rates,"⁹ and that it would have been obvious to modify "the Graham tilt valve with first and second inlet apertures as taught by Frangos so a user can select different flow rates."¹⁰ The Frangos patent, which is discussed in Applicant's specification,¹¹ discloses an aerosol dispensing apparatus with a valve 12 that includes a stem 13, penetrating through a top 11 of a container 10 and carrying an operating cap 14.¹² The stem 13 has a lower outlet port 38 and an upper outlet port 39. In the closed position shown in Frangos's Fig. 2, both outlet ports 38, 39 are closed by a seal 22. When the user applies an *axial* downward force on the cap 14, the lower outlet port 38 moves below the seal 22 so as to produce a first flow.¹³ When the user *further axially* depresses the cap 14, the upper outlet port 39 moves below the seal 22 so as to produce a second flow.¹⁴ Thus, in the Frangos device, the two flow rates are obtained by transmitting a force to the valve in the *same* direction, i.e., by moving the stem downward to a greater or lesser degree.

Reading the Frangos patent, a person of ordinary skill in the art would not find any teaching or suggestion therein to differentiate between the forces (e.g., lateral vs. parallel) responsible for the different flow rates. The Frangos patent does not teach or suggest flow rate differentiation by using different movements (tilting vs. depressing) to actuate the valve at the different rates. Therefore, even if the combination of the Graham and Frangos patents is assumed to be proper, the combination fails to teach every element of the claimed invention. Specifically, the combination fails to teach or suggest the claimed valve capable, in response to a force transmitted to the opening/closing element *laterally* to a longitudinal

⁹ See outstanding Office Action at page 2, last full paragraph.

¹⁰ See outstanding Office Action at page 2, last full paragraph.

¹¹ See Applicant's specification at page 3, paragraph 12.

¹² The Frangos patent, column 2, lines 40-42.

¹³ The Frangos patent, column 3, lines 3-14.

¹⁴ The Frangos patent, column 3, lines 15-23.

axis of the tilting valve, of moving from a *closed* position to a *first open* position in which the product under pressure is dispensed at a first flow rate, and in response to a force transmitted to the opening/closing element *parallel* to the longitudinal axis, of moving from the closed position to a second open position in which the product is dispensed at a second flow rate different from the first flow rate. Accordingly, Applicant respectfully traverses, and requests reconsideration of, this rejection based on these patents.¹⁵

In addition, even if the Graham tilt valve were modified "with first and second inlet apertures as taught by Frangos so a user can select different flow rates," as suggested by the outstanding Office Action, the modified valve would have, in the closed position, two outlet ports closed by the seal 10. This is because, in the closed position shown Frangos's Fig. 2, both outlet ports 38, 39 are closed by a seal 22. This configuration would be in contradiction with the features recited in Claims 3-4, 17-50. For example, independent Claim 17 recites "said first inlet opening communicates with said peripheral space in said closed position, and said second inlet opening bears against said sealing portion in said closed position." Similarly, independent Claim 43 recites: "said first inlet opening does not bear against said sealing portion in a closed position, and said second inlet opening bears against said sealing portion in said closed position." Independent Claim 34 recites similar features. Therefore, even if the combination of the Graham and Frangos patents is assumed to be proper, the combination fails to teach every element of Claims 3-4, 17-50.

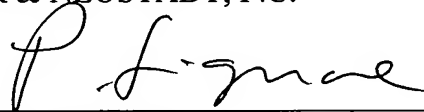
Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-54 is earnestly solicited.

¹⁵ See MPEP 2142 stating, as one of the three "basic criteria [that] must be met" in order to establish a *prima facie* case of obviousness, that "the prior art reference (or references when combined) must teach or suggest all the claim limitations," (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

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